

PROPOSED WATER MAIN BELOW EXISTING SEWER LINE WITH 18" MINIMUM VERTICAL SEPARATION. NOTE: COMPACTION REQUIREMENTS REFER TO 20-2,208 -EXISTING SEWER LINE SEE GUIDELINES #2.-PROPOSED WATER MAIN NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AND MEASURED PERPENDICULAR TO EXISTING SEWER LINE. GUIDELINES OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L". 2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN MOTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT. WATER AND SEWER PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT. SEPARATION 4. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING. REQUIREMENTS (VERTICAL SEPARATION)

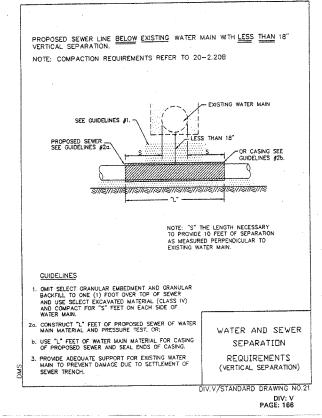
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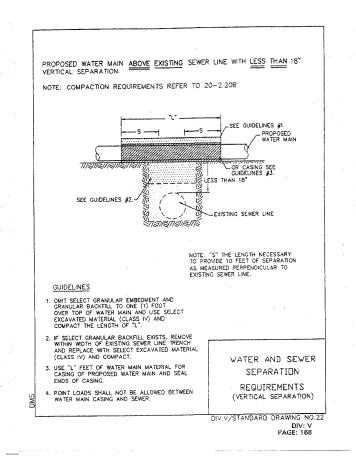
DIV: V PAGE: 170

PLACEMENT OF WATER MAIN <u>BELOW EXISTING</u> OR PROPOSED SEWER LINE <u>WITH LESS</u> THAN 18" MINIMUM VERTICAL SEPARATION. **NOT ALLOWED*** - EXISTING OR PROPOSED SEWER LINE WATER MAIN. LESS THAN 18" NOT ALLOWED+ MUST MAINTAIN 18" VERTICAL SEPARATION WATER AND SEWER SEPARATION REQUIREMENTS (VERTICAL SEPARATION)

PAGE: 172

PROPOSED SEWER LINE **BELOW EXISTING** WATER MAIN WITH 18" MINIMUM VERTICAL SEPARATION. - EXISTING WATER MAIN EXISTING BACKFILL PROPOSED SEWER. GUIDELINES PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH. WATER AND SEWER SEPARATION REQUIREMENTS (VERTICAL SEPARATION) DIV: V PAGE: 164





WHEN PROPOSED SEWER (OR WATER) IS LOCATED 10 FEET OR MORE FROM EXISTING WATER (OR SEWER), NO SPECIAL CONSTRUCTION REQUIRED. SEE SECTION 41–2.01B (1)

10' HORIZONTA

PLAN VIEW

WHEN PROPOSED SEWER (OR WATER) IS LOCATED LESS THAN 10 FEET FROM EXISTING WATER (OR SEWER), DETAILS BELOW SHALL APPLY.

SEWER LINE EXISTING OR PROPOSED

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WATER MAIN EXISTING OR PROPOSED

WATER AND SEVER

SEPARATION

REQUIREMENTS

HORIZONTAL SEPARATION

PAGE: 160

SEE SECTION 41-2.01B (2)

- PROPOSED OR EXISTING WATER MAIN

SEPARATION GENERAL NOTES

. Water mains and or services must be protected from sanitary sewers, storm sewers, combined sewers, force mains, house sewer service connections, drains and septic fields according to the standard specifications for water and sewer main construction in Lilnois, fifth addition, adopted may, 1996 and the illinois department of public health plumbing

DIV.V/STANDARD DRAWING NO.19

PAGE: 162

- ALL SANITARY SEWER SERVICES WHICH CROSS WATER MAINS AND OR SERVICES SHOULD USE "DUAL STAMPED" PVC SCHEDULE 40 PIPE (ASTM D1785 AND ASTM D2665)
- ALL WATER MAIN AND OR SERVICES MUST BE LOCATED AT LEAST 10 FEET HORIZONTALLY FROM ANY EMSTING OR PROPOSED DRAIN, STORM SEWER, SANITARY SEWER, COMBINED SEWER, OR SEWER SERVICE CONNECTION, UNLESS LOCAL COMDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET.
- CASING PIPES MAY BE USED ONLY WHEN VERTICAL SEPARATION REQUIREMENTS CAN NOT BE MET, CASING PIPES MAY NOT BE USED WHEN HORIZONTAL SEPARATION REQUIREMENTS CAN NOT BE MET. CASING PIPES MUST BE OF A MATERIAL THAT IS APPROVED FOR USE AS WAITER MISS.
- WATER MAINS MUST MAINTAIN A HORIZONTAL SEPARATION OF 10 FEET WITH FORCE MAINS. THERE SHALL BE AN 18 INCH VERTICAL SEPARATION AT CROSSINGS AND THE WATER MAIN IS TO BE LOCATED ABOVE. THE FORCE MAINT.
- WHEN A WATER MAIN CROSSES BELOW A SEWER, THE SEWER MUST BE CONSTRUCTED WITH WATER MAIN EQUIVALENT PIPE OR ELSE EITHER PIPE MUST BE INSTALLED IN A CASING. THE PROTECTION MUST EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE DISTANCE FROM THE WATER MAIN TO THE SEWER OR DRAIN IS AT LEAST TEN FEET. IN ADDITION, THE WATER MAIN MUST BE LOCATED AT LEAST 18 INCHES BELOW THE SEWER.
- 8. WHEN THE INVERT OF THE WATER MAIN IS NOT 18 INCHES ABOVE THE CROWN OF THE SEWER WHEN THE PIPES CROSS, A CASING PIPE CAN BE INSTALLED AROUND EITHER THE WATER MAIN OR SEWER IN LEU OF CONSTRUCTING THE SEWER WITH WATER MAIN EQUIVALENT PIPE. THE CASING PIPE MUST BE A MATERIAL THAT IS APPROVED FOR USE AS WATER MAIN. CONCRETE IS NOT AN ACCEPTABLE ENCASEMENT. THE CASING MUST EXPEND ON EACH SIDE OF THE CROSSING UNTIL THE DISTANCE FROM THE WATER MAIN TO THE SEWER OR DRAIN IS AT LEAST TEN FEET.
- 9. AT STORM SEWER CROSSINGS WHEN THE INVERT OF THE WATER MAIN IS NOT 18 INCHES ABOVE THE CROWN OF THE STORM SEWER, THE STORM SEWER CAN BE CONSTRUCTED WITH REINFORCED CONCRETE PIPE WITH A FLEXIBLE CASKET JOINT MEETING ASTIM C361 OR ASTIM C443 SA AN ALTERNATIVE CONSTRUCTING THE STORM SEWER WITH WATER MAIN EQUIVALENT PIPE OR PROVIDING A CASING PIPE AT LOCATIONS WHERE IT IS NOT POSSIBLE TO MEET THE VERTICAL SEPARATION REQUIREMENTS. THE USE OF FLEXIBLE CASKET JOINT CONCRETE PIPE DOES NOT MEET THE REQUIREMENTS IN PARALLEL STILATIONS WHERE LOCAL CONDITIONS PREVENT A 10 FOOT SEPARATION.

- 12. HORIZONTAL AND VERTICAL SEPARATION REQUIREMENTS APPLY TO WATER SERVICE LINES THE SAME AS PER WATER MAINS.

